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OBSERVATIONS

ON

THE USE

OF

MERCURY

IN

PUTRID FEVERS,

AND THE

PUTRID AND ULCERATED SORE THROAT.

By WILLIAM KNIGHTON, M. D.

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OBSERVATIONS, &c.

SOME years since that late learned, eminent, and ingenious Physician Dr. Geach, suggested to me the efficacy of Calomel combined with antimony, in putrid Fevers, and the putrid and ulcerated fore throat, a practice which he himself had followed for upwards of twenty years, and with great success. Tho' this practice was thus respectably recommended, yet it did not engage my immediate attention because it seemed a kind of heresy to depart from the established custom and laws of medicine, sanctioned by men of very great eminence, who advised bark, wine, and opium in such disorders.

About the year 1794, the Physician, to whom I have already alluded, was so kind as to communicate to me the following letter, which he had sent, respecting the disorder in question, to Dr. Francis Milman, a very learned and eminent Physician in London.

Royal Hospital, March 1792.

Sir,

Some years ago I did myself the honor of presenting you with my pamphlet on the relaxation of human bodies, and the misapplication of the bark, &c. which pamphlet you was pleased kindly to accept, and at the same time expressed a desire, if any observations were extended beyond my printed thoughts, that I would communicate them to you. I have nothing further to add on relaxation; but beg to enlarge a little on a hint given in that pamphlet on the efficacy of Calomel in putrid or continual

tinual fevers, and putrid and ulcerated sore throats.

What first induced me to use mercury I will freely tell you. From long attention I found, that few or none under a course of mercury were susceptible of such infection, tho' residing within the sphere of prevailing and active contagion. It was remarked also, that the critical solution of such fevers and sore throats was often by a discharge from the nose, and oftener by a very copious defluxion from the mouth and fauces, which at the commencement of the disorder, were in a red, and even parched state. I therefore thought that nature might be assisted in her own way by producing such a salival discharge when deficient, or rather by helping it on when produced, by that very active medicine Calomel, without considering whether Calomel had any specific

virtue or not in such cases. Its salutary effect however in putrid and epidemic Dysenteries, and particularly in the putrid Fever and epidemic Dysentery of 1781, was visible enough; an account of which I published, and did myself the honor of transmitting it to you at that time. Medical practitioners in India know, from observation and experience, that mercury relieves often, and sometimes cures those afflicted with indurations in the liver; bilious complaints, and chronical obstructions. And the success that has for many years, within my observation, attended the practice of giving Calomel in putrid Fevers and putrid sore Throats, will be a sufficient apology for troubling you with this letter. And I must request that you will be pleased to try the medicine yourself, bring the whole of its effects to the test of your own judgment, and by the result of your experience decide
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upon it; adopt or reject it. Although in the long run of twenty years practice many cases might be adduced to give sanction to my opinion, yet it is my wish that cases of success and of failure may come from yourself, whose authority is of more weight than mine, and whose skill and sagacity are far superior. If called early to a patient in a putrid Fever, or putrid sore Throat, I vomit that patient with ipecacoanha. If not called in early, I give no vomit at all, nature in general having relived herself in that way before; and although vomiting exasperates the throat, fauces, and tonsils, yet an emetic evacuates the colluvies, which tends to keep up the Fever and sore Throat. An hour or two after the emetic, a grain or two of Calomel is given according to the strength and circumstances of the patient, and the next day an infusion of senna with manna; after this three or four grains of James's Powder,

Powder, with the same quantity of Calomel, every six or eight hours. Upon these medicines, and proper support, the whole dependance is placed. If Calomel and James's Powder do not keep the body open, some mild laxative should be administered; the sick person should be kept clean, and the chamber night and day well ventilated, notwithstanding the idea of mercury, antimony, perspiration, night air, &c. may seem to forbid it: Calomel, though given thus daily, does not always produce a ptyalism; and as nature frequently relieves herself without this medicine, by a salival discharge, it is not always easy to decide whether the defluxion be the natural consequence of the disorder, or the effect of the medicine.—The occasion in this case however is of no import, as such a defluxion, if suffered to go on, and not suppressed by astringents, will prove critical, and terminate the disorder.

order. If it be said that the antimonial preparation alone will often cure these complaints, I reply that the cure will be more frequent when Calomel is thus combined with antimony; or Calomel will effect the cure without any antimony at all.—

Although I had never heard or read that Calomel had been given in putrid or continual fevers, yet I have lately found, that a pamphlet, as far back as the year 1771, was written partly on the same subject, by the ingenious Dr. Lysons, of Bath, whose book I have perused, and am glad to find that we agree in many points: Infomuch that the causes published by him give, in some measure, a sanction to my practice, and mine reflects back an authority on that of Dr. Lysons. Perhaps you will think that Dr. Lysons having said so much, has said enough; but for the honor of that Physician and his doctrine, as well as to satisfy

satisfy the world, and to extend still further the reputation of a useful medicine in such Fevers, it is my wish that your attention be invited to the subject, that the practice be further confirmed and diffused, and the medicine from your own observations, find a more popular reception from its good effects, when so respectably attested.

I have the honor to be,

Sir,

With infinite respect and obligation,

Your most obedient, humble servant,

FRANCIS GEACH.

Prompted by this letter, and encouraged still more by frequent conferences and medical communications with the Author of it, I was induced to abandon the system in vogue, and adopt this of his recommending, and with what success it was adopted, the following pages will evince.

The same remedy, in similar cases, was made acceptable to Dr. Milman, by Dr. Clifton, a Physician of great skill and respectability, who accompanied Sir Charles Grey, when that experienced General embarked with his Majesty's forces for the West-Indies.—Dr. Clifton adduced many cases to give sanction to this practice, and it is no less remarkable than true, as Dr. Milman observed on the occasion, that two practitioners at such a distance, without any previous knowledge of each other, or any communication whatever, should recommend the same mode of treatment to the same Physician, at or about the same time. The late Sir Thomas Byard, a very intelligent naval Captain, on his return from Toulon, related the following fact to Dr. Geach, in corroboration of what he had heard that skilful Physician advance to the late learned and Reverend Mr. Alcock,

many years before, respecting mercury in putrid cases. “The English sailors at Toulon, having in their possession a quantity of quicksilver, rubbed the inside of their culinary vessels with it, in order to brighten them. The effect was, that those who partook of the broth boiled in those vessels, were salivated; and those, who were in health, and salivated also, received no infection at all, altho’ cohabiting with the infected.”—At the request of Dr. Geach, the late General Morris ordered Mr. Worship, a very ingenious surgeon of one of the regiments under the General’s command at Plymouth, to make a trial of this medicine; and it proved so successful, that a great number of cases, setting forth its success, were sent, with the General’s permission, to the Lords Commissioners of the Admiralty. Dr. Rush’s ingenious book is in the hands, I suppose, of almost every medical person,

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and therefore it were superfluous here to recapitulate his practice. Were we to run farther back, we should find that Dr. Huxham himself was induced to give Calomel in these fevers, when some worms were voided, and more were suspected; but nothing in his writings, as well as I remember, is intimated concerning its use in the putrid Fever itself. That great Physician, had he lived till this time, in all probability, so candid as he was, with so enlarged a mind; with such perspicacity as he possessed, would have discovered the salutary principle inherent in this medicine, in cases of this kind, and would have been open to conviction, as no man was ever more studious of investigating truth, or of embracing it wherever he found it, or from whomsoever it might come.

Mr. Bredall, a very skilful surgeon, an old practitioner, a man of character and of

extensive practice, had the care of one hundred and twenty soldiers of the Royal Chester Blues, commanded by Colonel Podmere. These soldiers were brought from Ireland to Ilfracombe, and from thence to Tavistock. The putrid Fever prevailed among them, when, by pursuing the mercurial plan, and Mr. Bredall pursued it to a considerable extent, all, except one man recovered; neither did any salival defluxion attend the use of the Calomel. He treated many others in that town and neighbourhood, laboring under the same fever, with the like success. Neither did he observe that Calomel ran off in a Diarrhœa; on the contrary, he was obliged from the onset to the termination, to administer occasionally some gentle laxatives. The same Gentleman saw also the good effects of this mercurial preparation in ulcerated sore throats, with which many children and adults were affected at Beer and Beeralston.

The experienced Surgeon of his Majesty's ship *Veteran*, who was long in the West-Indies confirming this practice, of giving Calomel in this very Fever, which prevailed in his ship, remarked, that no medicine else was found at all effectual ; and added, that as soon as the mouth became sore, the disorder relented ; but it is no less remarkable, than true, that a drachm and half of Calomel, and even more, hath often not produced this effect. The Honorable George Dundas, who lay very dangerously ill at Stonehouse, of this very fever that prevailed in the ship to which he belonged, commanded by *Captain Southerton*, recovered, after having taken, for three weeks, eighteen grains of Calomel daily, without producing any soreness of the mouth, or any defluxion whatever : and the same quantity of Calomel, with the same success, was every day, for three weeks, administered to Lieutenant O'Brien,

O'Brien, a nephew of Lord Inchiquin, without exciting any salival discharge ; and I think I have observed, that the greater the degree of putrescency, the greater difficulty there is to induce a ptyalism ; and this shews what difference there is between this kind of putrefaction, and that arising from a scorbutic disorder ; for a very small quantity will often affect the gums of scorbutic patients ; and therefore, when this disorder is combined with a taint of another kind, we are under the necessity of desisting, for a time, from a mercurial process, on this very account. However this may be, there is some reason to think, that a certain quantity of mercury is necessary to be introduced into the habit, in order to subdue this fever ; as we find in another disorder already alluded to, which though not acute, is but too popular among us : for here a quantity of mercury must be used, proportioned

portioned to the degree of virus, and the habit of the patient. Perhaps future experience may bring all this in a great measure to more certainty, and enable us to judge how much mercury in general will be required to conquer effectually such a Fever as this in our own climate. For as the disorder in the East and West-Indies is more rapid, and of course sooner fatal, much larger doses, and oftener repeated, according to the circumstances of the patient, will be required.

It will be thought perhaps, by those who have been, from education, and from other causes, devoted to another system, that Calomel, thus frequently administered, will affect the bowels; but in the Dysentery that prevailed in September 1781, (an account of which was published by this ingenious Physician Dr. Geach) Calomel carried off
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the bloody and mucus stools ; caused the fever to subside, and the fæces to descend : But to shew how often we are deceived by reasonings *à priori*, let the practitioner put this process upon its trial, and he will find for the most part, that this very medicine, which, from conjecture, he deemed prejudicial, practice will shew to be a remedy ; for the very cause that produced either Diarrhœa or Dysentery, or both, will be corrected, or destroyed by this preparation ; infomuch, that during the whole course of mercury, I have often been under the necessity of giving rhubarb, cream of tartar, and tamarind whey, in order to keep the body open ; although previously to the use of Calomel, the intestinal discharges had been frequent, fœtid, and bloody.—It is but candid however to own, that Doctor Clifton, fearful of this consequence, and, from one instance, suspecting that his in-
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tention had been defeated by a Diarrhœa, supervening the use of Calomel; adopted another mode, and he carried this mode so far as to rub, even children, with the strong mercurial ointment, in order to raise as soon as possible a ptyalism, placing his dependance on that discharge, when the disorder raged with the utmost severity, and life was in danger.

The testimonies I have received on all sides, from different practitioners, tend still further to strengthen what I have advanced on this subject, and may collaterally prove that unbiassed and unprejudiced people have seen the same happy effects as myself, from the use of this medicine. Whether time, that matures every thing, that hides, and brings to light what is hidden, may shew us that this medicine, even in other fevers, may have its use, it is not my pre-

sent business to discuss, but only to suggest, as I wish to confine myself to this fever, and to the ulcerated fore throat, and therefore am not desirous of losing myself in theory, which I know is liable to be controverted, and the controversy may counteract the practice, render it confused or doubtful, or set it altogether aside, until another generation, by some lucky hit, some fortuitous event, (if any event be fortuitous) revives and brings this medical treatment again into repute; and then advocates will arise as strenuous for it, as their predecessors were for the bark, opium, and wine.—Having mentioned these, permit me to observe, that tho' the weakness and languor of the sick, in these disorders, may sometimes dispose the practitioner to think that bark, wine, opium, and such like bracers, antiseptics, sedatives, as they are termed and administered, are
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proper to remove fever, languor, and putrefaction ; yet, have I seen patients in the putrid fever, to whom bark had been given in table spoonfuls for a dose, and such a dose repeated every second hour ; when they had drank a strong decoction of the bark for their common drink, and three bottles of Port wine daily ; who, after all, died under putrescency. Such was the case of Mr. Gill, a worthy surgeon of Liskeard ; and having seen numerous cases of the same kind, under the same regimen, terminate in the same unfortunate way, I must confess I was inclined to seek after other means of relief, and a more effectual method of cure. Waving therefore all theory whatever, I thought that medicine must be learned, as well as practised, at the bedside of the patient, else why clinical lectures ? And however respectable the authority might be, that the business after

all, must be reduced to common sense, and that theory, however well fancied, however plausibly supported, must give way to observation and truth: yet I do not here by any means wish to intimate, that my authority is to countervail or set aside that which men of superior talents have submitted to the public; but when their theory, or their practice, or both, in too frequent instances have been the cause of disappointment, it will, I hope, be deemed neither vanity nor presumption, to deviate with due deference and caution from them; especially in a science considered as conjectural, where we have both limited power of mind, and of medicine, different disorders, and various changes in these disorders: And although I may venerate, and venerate I do, the great Physicians who have been my guides, and, if you please, my philosophers, yet when such guides
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and philosophers do not conduct me to the right path, to the path that leads on to the restoration of the sick, and to the purpose for which I was educated, for which I study, and for which I practise ; a wary deviation cannot be considered as wild error, especially when such a deviation has by men of learning, of judgement, and of observation, been recommended. So deep indeed is the science, so various the opinions of men, so complicated and undefined the disorders, that those of the greatest eminence, think it sometimes necessary to call other Physicians in to consultation ; nor is this strange, since we see in the law, the books of which equal, or out-number those of physick, that the learned Judges themselves are sometimes individually bewildered, and refer cases to the whole bench for their decision ; and even in affairs of state, all the members are summoned
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when matters of import are to be debated, councils of war are held, and committees are appointed, by whose union of talents, the business, whatever it may be, is to be considered, adjusted, and concluded.

It may be worthy of remark, that after the use of Calomel, although no salival discharge hath often been promoted by that preparation, nor any critical solution of the fever by a deposit in the urine, a diarrhœa, or a profuse perspiration; yet it is certain, that the blackness of the tongue hath soon disappeared, and that the sloughs in the ulcerated fore throat have been detached after the use of this medicine uncombined with antimony, when the urgency of the case hath required large doses at no great distance from each other.

When Calomel hath not been administered,

nistered, we know it is worth while to watch the crisis of the fever in question, whether it hath been perfect or not, whether the habit hath been wholly freed from the febrile matter ; for such sometimes, when not altogether thrown off, will lay the foundation of some chronic disorder, to be seen, and severely felt, at a great distance of time ; and then, the real cause not being suspected, the disorder will be attributed to something else, less remote. If therefore, when the fever has yielded, and no crisis hath been visible ; when the patient hath not recovered his complexion, but hath at times a pain in the bowels, little or no appetite, a ringing in the ears, there is reason to fear, though he may go on thus for some years, that the relicts of the fever caused those complaints ; and, perhaps, the peccant matter may be thrown on some viscus within, or some part with-

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out; sometimes no organ or viscus may be affected at all, but the subtle poison, (for so it may be termed) not expelled by the febrile force at first, nor corrected afterwards, nor dissipated by Nature's own effects, may be totally destroyed by another fever; and then the habit will be renovated. I have known the last essay of a fever affect, in a lad, the dense part of the tibia in a node like appearance, and that node accompanied with acute pain and inflammation, hath been removed by mercurial ointment, well rubbed on the part; and when the fever hath not been carried off, either through the kidneys, the pores, the wind-pipe, or the intestines, I have known a religious melancholy succeed, and harrafs the patient, and the cause being merely mechanical, and subtle, of a nature not discernible, nor to be understood; the disorder, now become a new
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and distinct one, hath not yielded, either to setons or issues, or waters of any kind, or to medicine.

But when Calomel hath been given, even in large doses, till the fever hath been perfectly vanquished, I have not yet seen any ill effects from it ; neither have there been discernibly any of those consequences just enumerated from an imperfect crisis, when the fever hath either worked out partly its own destruction, or hath been in some degree conquered by any other medical means : and it may be proper to mention this circumstance, lest the medicine should be prejudged, and an idea entertained that mercury (the name of which is formidable) should be considered as injurious to the system itself, and that while it is given with the view to correct or take away one evil, it may introduce and leave another behind.

But I have more than once observed, (and had it not been more than once I would not have mentioned it) that patients, whose health had been precarious, who had been ailing before the fever attacked them, have got rid of their former complaints, and have become healthy ; although I will not take upon myself to say whether the change were wrought by the effect of the fever simply considered, or by the mercury removing the obstructions, that were the cause of their ailments : further, I have known that patients, subject to flatulencies, and bilious disorders, have been relieved by a liberal course of mercury, when a disorder of another kind, which nothing but mercury or the nitrous acid will extirpate, hath required it. Let it not therefore be said that Calomel will irritate too much ; that it will break down still more, the blood, already broken by contagion : for
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this reasoning will be found as little valid, as that the bark will resist or correct such putrescence, and laudanum quiet the irritation in such fevers, when the fluids or the humors become active, struggle to get loose, and rush out wherever they can find vent.

The general doctrine being thus explained, there will, I trust, be no need to multiply instances of success, in order to illustrate and sanction this doctrine. It is my wish, however, that the rules here inculcated, may be attended to, by the unbiassed and unprejudiced; as I have no motive whatever thus in bringing into further repute, this method or art of curing, but that the use of Calomel, in the hands of abler men, may become more general, and I trust it will be found a more effectual remedy than any hitherto administered, for

this very calamitous disorder ; neither let the practice be considered as empirical, because it is founded only on experience ; for if so, the *immortal Sydenham* himself could not be ranked in any other class than that of rational empiricks, as the very learned Le Clerc indeed has observed in his History of Physick.* “ Nous avons les Ecrits d’un fameux Praticien Anglois, (Sydenham,) mort depuis peu, qui ne s’éloigne guère des regles qu’on a données, & qui renouvelé avec succès *l’Empirique raisonnable*. Il seroit à souhaiter que tous les Médecins suivissent son exemple.”

Neither let the medicine itself be condemned untried, because we cannot account for its action ; lest it should be retorted, that we know not how bark taken inwardly, or quilted into a waistcoat and

* Vid. page 368 Hist. de la Med.

worn outwardly, how arsenic, or a cobweb, or the snuff of a candle cures the ague, although we know that each in its turn has been effectual enough to remove, for a time at least, that disorder; with respect then to the power, the *modus operandi*, and the effect of this medicine, ingenious men may deduce, from some data or other, enticing notions that may appear satisfactory, but such reasons or notions, if *à posteriori*, will surely be more effective, more convincing than the theory, which preceded the practice. Perhaps it may be found, and the new chemistry may assist us, that Calomel someway or other operates on the bile, and who knows but the bile itself may in some way or other vitiated, be, in part at least the cause of the disorder, or that infection of what kind soever it be, inscrutable to human penetration, may more particularly affect this fluid, and the liver,

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from whence it is fecerned ; for we obferve the fame yellow tinge in the eyes, the fame drynefs, the fame pungent heat on the fkin, as in the jaundice ; which appearance we find alfo from other kinds of infection, befides the infection of this fever, as that from the bite of a viper, and of another diforder, too frequent among us.

In putting thefe few pages together I am influenced only by facts, and a wish that the ufe of Calomel in putrid or continual fevers, no matter for the name, or for words, may be further extended ; that the prejudice annexed to this medicine, from its long known qualities, contrafted with its newly difcovered and defcribed effects may be removed, that Calomel may fupersede in fuch fevers the Peruvian bark, opium, and ftrong liquors. The testimonies here made public are from very
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respectable authority, to which no doubt can be affixed, no censure can with candour be attached. The medicine, if put to the test, and then found inadequate, will soon sink into disrepute, as not being equal to its character: if it succeeds, I shall be happy that I have been in some degree instrumental towards bringing it more into notice.

The Writer cannot be deemed an innovator, because this practice was known and followed, although in a small circle, near thirty years ago, and it has lately been sanctioned by men of character and of skill; but had it been then published, such novel doctrine would not have made its way, could not have resisted attacks, especially from those who were intoxicated with the wine of error, unless a Boerhaave had advanced the doctrine, or a Cullen defended

defended it. The present period seems better calculated for the purpose of its popularity; but whether now it will be universally credited, and received readily by the public, it is impossible to say.—The Author having no theory to fortify or establish his practice, a plain and unadorned narrative may be unheeded; his pamphlet may be soon oppressed by the incumbent weight of more consequential productions, or lie smothered and undistinguished among the mass of other literary trifles. Be this as it may, the rectitude of the Writer's intention cannot suffer any diminution either by time or contingencies.



ROACH, PRINTER, DOCK.